MANAGING RISKS WITHIN INTERNATIONAL HOTEL CONSTRUCTION PROJECTS

by

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ABSTRACT

The study highlights risk identification, mitigation, management and evaluation in relation to hotel construction, more specifically to the hotels built and owned by the 'Hotel Investments Company Limited', who construct and operate four and five star hotels globally.

The Company constructed a hotel in Tripoli, Libya and was bound by certain economical and/or political constraints. The study outlines the benefits achieved in building the hotel and establishes the reason why the company chose to do so.

Firstly it outlines, information regarding the Company, to better understand how the company functions and how management deals with situations they maybe faced with in relation to international hotel development. Secondly, an analysis on the hotel project in Tripoli, how the concept evolved, its viability, what risk procedures were adopted initially, what risks were identified during the process, reactions to such risks and the measures adopted to control them and how they saw the project through to its completion.

During the course of this research it will be demonstrated that having prior knowledge in anticipating situations will be beneficial to making informed decisions and to a certain degree will prevent setbacks from occurring.

All names and sources of information pertaining to this case study have been substituted.

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September, 2006

I, Nicolette Fenech, declare that this ten thousand word report is my original work it is the result of my own research and any conclusions or statements are mine, unless otherwise stated.

Nicolette Fenech B.E&A.(Hons.) A&CE

September, 2006

To my Father and Mother for their patience,
To Simona for our happy memories in London and
To Kerstien for all his love and support

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Chapter One **Introduction**

1.1 The Context

Procurement routes in construction are essential; each route must best suit the objectives and the resources of the project at hand. This is best obtained once a process of analysing relevant risks is identified, assessed and responded to appropriately.

> "...in construction projects, the question is not whether to take risks but how to take reasonable risks. Our task is not to avoid risk but to recognise it, assess it and manage it..." (Raftery, 1994)

Risks are assessed upon the probability of their occurrence and the possible impact they would have on an organisation, should they arise. A three step risk management process may be applied. This involves identifying the possible risks, assessing the inherent risks and thus responding to them accordingly.

An element of risk is unavoidable. Every organisation must assess any identified risk and respond appropriately, thus relieving the organisation from the original extent of that risk, reducing it to a level considered to be "tolerable" in the eyes of the organisation (Chapman et al, 2003).

This study aims to fill a gap focusing on managing the risks of a project from conception to completion. Risks have been evaluated by examining them with a case study located in Tripoli city.

1.2 Aims and objectives of the study

To investigate the difficulty in identifying risks, when experienced in constructing hotels of 5 star status in the country is minimal. The main aim of the research is to understand, analyse and evaluate the risks associated with construction in Tripoli city. This will lead to a number of objectives, which will be used to measure the development of our research methodology.

1.3 The methodology

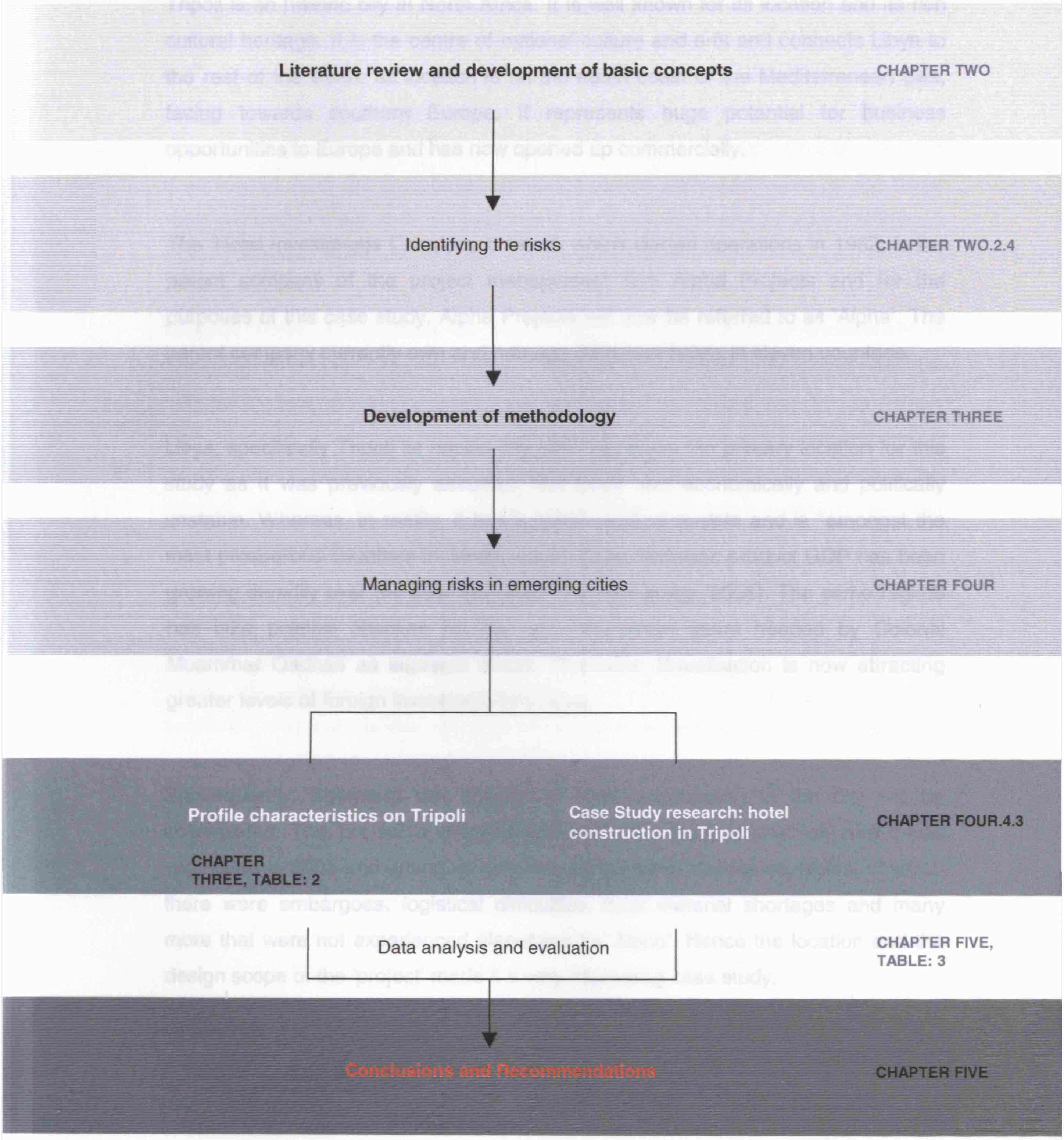


Figure 1: Process of Research

1.4 The selection of the case study

Tripoli is an historic city in North Africa. It is well known for its location and its rich cultural heritage. It is the centre of national culture and arts and connects Libya to the rest of the world. Its location is on the south coast of the Mediterranean Sea, facing towards southern Europe. It represents huge potential for business opportunities to Europe and has now opened up commercially.

The 'Hotel Investments Company Limited', which started operations in 1962, is the parent company of the project management firm Alpha Projects and for the purposes of this case study, Alpha Projects will now be referred to as 'Alpha'. The parent company currently own and manage thirty-one hotels in eleven countries.

Libya, specifically Tripoli its capital city was chosen as the primary location for this study as it was previously assumed that Libya was economically and politically unstable. Whereas, in reality, it has a stable political system and is "amongst the most prosperous countries in Africa, whose gross domestic product GDP has been growing steadily over the past few years"(Monitor group, 2006). The same regime has held political absolute for the last thirty-seven years headed by Colonel Muammar Qadhafi as supreme leader. Economic liberalisation is now attracting greater levels of foreign investment into Libya.

Subsequently, analysing risk specific to hotel construction in the city will be investigated. The 'project' mentioned later within the study is relatively new it was completed in 2003 and during its progress encountered various obstacles, of which there were embargoes, logistical difficulties, local material shortages and many more that were not experienced elsewhere by 'Alpha'. Hence the location and the design scope of the 'project' made it a very interesting case study.

1.5 The structure for the report

The research consists of five chapters: Chapter One involves the development of the research based on the importance of analysing risks. Chapter Two.2.1 reviews risk management, the importance of identifying risks at various stages of the project. Chapter Two.2.2/3 broadly reviews how risk management enables 'Alpha' to achieve its objectives and satisfy quality and status and finally Chapter Two.2.4 describes in detail the risks found so that all parties are made aware of who holds responsibility for high calibre assessment in the management of risks throughout the life of the project and how these are accommodated.

Chapter Three concentrates on the hospitality industry and its involvement in emerging countries. Chapter Three.1 contains the analysis regarding 'Alpha's' national characteristics. The comparison of how other countries, common to 'Alpha', rank as to the ease of setting up businesses. Chapter Three.3.2.1 elaborates on national characteristics of Tripoli. Consequently, Chapter Three.3.3 contains the analysis of 'Alpha', its profile and history, the type of hotels it constructs and the countries they choose to operate and manage in.

Chapter Four emphasises on the case study. It elaborates on analysing the risks involved, which are associated with the various stages of hotel construction in Tripoli city. Chapter Four.4.1 reviews the chronology of the construction works, evaluates and justifies the identification of risks by analysing their management throughout the life of the project.

Chapter Five is the last chapter, which outlines the research conclusions and key research findings with some recommendations and suggestions for future research.

Chapter Two **Area of Study**

2.1 Introduction

In order to develop a conceptual framework for the research, it was necessary to review literature in search of information, concepts and definitions, regarding the basic features, meaning and understanding of risk management. Due to the expansive concept of risk management, a full review would be impossible in this limited study.

This chapter aims to identify the essential functions, meanings and aspects that have been associated with the concept of risk.

2.2 Theoretical foundations

Risk, reflects the uncertainties surrounding the delivery of objectives. Such uncertainties may lean towards either of two extremes, acting as threats towards achieving success for a project or as opportunities worth acting upon (Biswas, 1997).

There are many resources available for managing risk. However, what is essential is that an optimum response is implemented in tackling risk. This is further developed by prioritising the objectives of the organisation. If a certain matter is considered to be important, any risk affecting the likelihood of it running smoothly, would be considered vital to its viability and thus, is referred to as a "key risk" in the completion of a project. Consequently, risks need to be prioritised according to how important the objectives are.

The earliest stage of the project's life-cycle referred to as the "conception" stage (Kelly et al, 2002), encompasses large amounts of uncertainties. In addition, for the project to be confirmed, the investment is assessed to ensure potential viability.

> "....at the start of every project there is a large amount of risk, resulting from the way in which the project will proceed. Hence the level of risk is the combination of the probability of the risk occurring and the possible impact on the project if they are realised...." (Smith, 2003).

When a poor project investment has been identified at early stages, it results in saving time, costs and resources. Yet, on the other hand, if potential problems are not analysed for a project this could mean financial ruin for the client.

2.3 Risk management; an analytical framework

Effective risk management is needed to give full consideration to the context in which the organisation functions and to the risk priorities of partner organisations. The management of risk is strategic. "Programme and operational levels need to be integrated so that the levels of activity support each other". In this way the risk management strategy of the organisation will filter through the entire operation and embed itself in the working routines of the organisation. All staff should be aware of any identified risk and its relevance to the success (or otherwise) of achieving their objectives. Training in risk management to support staff should always be available (Flanagan et al, 1993).

The management of risk is not a linear process, rather it is the balancing of a number of "interwoven elements" which interact with each other and which have to be kept in balance if risk management is to be effective. Furthermore, specific risks cannot be addressed in isolation, the management of one risk may possibly have an impact on another and management actions which are effective in controlling more than one risk simultaneously may be achievable (BSI, 2002).

Risk is uncertainty of outcome. Good risk management allows an organisation to have increased confidence in achieving its desired outcomes, "effectively constraining threats to acceptable levels and helping in making informed decisions about exploiting opportunities" (Biswas, 1997). It also allows stakeholders to have increased confidence in the organisation's corporate governance and ability to deliver.

Every organisation should have a risk management strategy, designed to achieve the principles set out in this report. The application of that strategy should be embedded into the organisation's business systems, including strategy and policy setting processes, to ensure that risk management is an intrinsic part of the way business is conducted.

2.4 Summary of the relationship between hotel construction and risk management processes

In order to manage risk, an organisation needs to know what risks it faces and how to evaluate them. Identifying risks is the first step in building 'Alpha's' risk profile. This study provides an analysis of some of the notions that are included when constructing hotels. The purpose is to find significance between the various factors summing up the programme of works in regard to the risks incurred.

TIME

Three important separate, yet interlinked factors compliment an investor in balancing costs related to the construction of a new development. Firstly, time estimated for works to be completed and its respective actual time must be of close proximity, in turn indicating efficiency and the appropriate control applied in the programme of works.

COST

Secondly, costs in constructing a new hotel fluctuates, depending upon various factors taking place during the life of the 'project'. However, 50% to 70% of the budget is specific to costs in constructing a hotel. Factors may include, site conditions and characteristics, building plan, layout and circulation allowances, furniture, fittings and equipment (FF&E) expenditure, leisure facilities, local and statutory authorities, speed of construction, location and procurement options adopted.

QUALITY

Finally, quality assurance is decisive in realising the project's objectives. To achieve the desired standard that is customarily attributed to a 5-star hotel. It is not the amount of concrete poured and used to achieve good levels of rate of return. Yet it is the design accuracy, the adherence to procedures, the commitment of teams all working in unison so as to attain the levels of success seen during the operation of the hotel.

Many of the above mentioned factors may be brought together under larger areas. For instance, ground conditions incorporate location, site conditions and characteristics. FF&E's, local and statutory authorities, quality in design and building plan and layout, all are incorporated in the design works and procurement options and speed of construction fall under construction works (Table: 1).

All such factors may be viewed upon as risks closely associated to finance, geographical conditions, design procedures, construction works and operation (further discussed in Chapter Four). Therefore these variables are adopted in this study as variables related to risk and are employed for the investigation and evaluation of analysing the risks involved when building a hotel in Tripoli City.

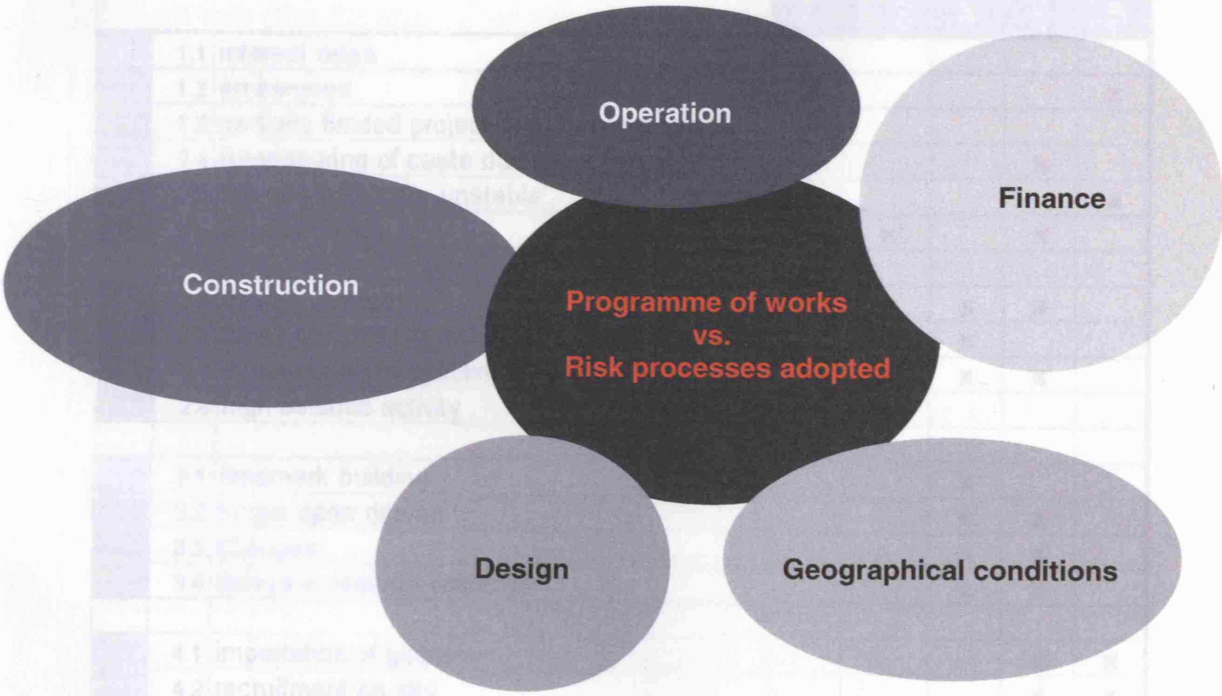


Figure 2: Schematic diagram relating programme of works to risks incurred

The following table summarises areas of the programme of works and their use in relation to risk management issues. The factors involved in establishing risks within the five areas are elaborated on in Chapter Four, yet are highlighted within this table to indicate the amount of risks that were identified throughout the life of the 'project'. It can clearly be seen that certain risks are common to two and/or three of the areas. It is imperative for such risks to be identified, assessed and responded to in the best possible way, so as to control the extent of risks affecting the client's potential profitability.

Relation to risk analysis		*Areas*				
		finance	*geographical conditions*	*design*	*construction*	*operation*
1.1	interest rates	x				
1.2	embargoes	x				x
1.3	partially funded project prior to construction	x				
1.4	remeasuring of costs during progress	x			x	
1.5	country politically unstable	x				x
1.6	project terrain	x	x		x	
2.1	design changes		x	x	x	
2.2	close proximity to sea level		x	x		
2.3	constructing on reclaimed land		x	x	x	
2.4	high seismic activity		x			
3.1	landmark building			x		
3.2	single span design			x	x	
3.3	changes			x	x	
3.4	delays in issuing drawings			x	x	
4.1	importation of goods				x	x
4.2	recruitment on site				x	x
4.3	appointment of tenders				x	
4.4	delays & damage				x	
4.5	lack of skilled labour				x	
4.6	over designing - reinforcement				x	
4.7	lack of country experience				x	
5.1	competition					x
5.2	software					x

Table 1: Areas of works vs. risk analysis

2.5 Summary

It is essential to have a clear theoretical understanding of the risk management process. This summary briefly outlines some of the important theoretical findings that lead to the development of a methodology for the empirical study.

The study started by searching for a definition of the concepts of risk management. Risks are defined as;

> "....situations where the actual outcome for a particular event or activity is likely to deviate from the estimate or forecast value...." (Raftery, 1994)

Three areas acknowledged within the process (elaborated in appendix A) consist of the identification of risks, their assessment and the adequate response obtained through tolerating the level of the risk, treating it , transferring responsibilities or by terminating the activity that caused the risk to realise.

We then move on to assert the importance of a programme of works in the construction of hotels, together with a risk analysis formation and to search for areas through which the relationship between concepts and workmanship can be investigated.

Development of large scale projects on foreign territory may lead to undesirable circumstances. A company may be very experienced within the hospitality industry in their own country, yet when undertaking projects abroad, their experience may not have been as informed. Therefore by adopting a more formal risk management process, as mentioned previously, at the commencement of the project, this will reduce the impact of identified risks arising and reduce their level of possible extensive damage. They should be dealt with at the right time by employing remedial action.

Where the definition of risks has been identified within the process of hotel development these must be eradicated and not allowed to escalate. We will now examine the different risk factors that were found to be specific to Tripoli, which, for the purpose of this report, will establish coherent management of risk.

Chapter Three **Study context**

3.1 Introduction

In the previous chapter we dealt with the issue of risk as a concept and its relation to hotel construction. In this chapter the study searches for different factors related to Tripoli and possible forces that may influence the programme of works. To do this we start by giving a brief description of the countries in which 'Alpha' is involved, analysing the ease of entering a foreign territory and establishing a business (Table: 2).

The ease of opening up businesses has been targeted to Tripoli city under the Qaddafi regime (since 1969).

> "By simplifying business regulations, strengthening property rights, reducing exporting and importing costs, easing tax burdens and increasing access to credit, the country becomes more accessible for trade and enhances the level of ease to start a business" (Doing Business, 2006).

Countries elsewhere in Africa, face similar situations as those pertaining to Libya in that formal economies are of priority, there are many obstacles to overcome when doing business and their programme of reform is slower than anywhere else (World Bank, 2006).

The following table summarises the countries in which 'Alpha' constructs, manages and operates. The table indicates Belgium in 18th place (out of 150 countries) as compared to Togo in 149th position, signifying that there are fewer obstacles to overcome in the former country when setting up a new business. With regard to the standard of living 'Alpha' finds itself working under various conditions, ranging from low to middle, to high income countries. The cost of setting up or investing in a business is much lower in Russia, with a 5% charge of income per capita than it is to start up in Togo, Sudan and Turkey with 218.3%,68.1% and 27.7% respectively (Table:2).

INVESTMENT OF FOREIGN CAPITAL

When promoting investment of foreign capital into Libya, if local nationals participate with a percentage of 50% within the investment project, then the minimum value for starting a business would be of LD2,000,000 (two million Libyan Dinars). Hence in Table: 2, 1.7% of the total investment is needed as the minimum amount of capital for investments falling under the Investment Law No.5. If the project had no local nationals investing, then 4.2% of the total investment is needed as a minimum capital (Executive Regulations, Law No.5, 2004). The former regulation was an amendment to the law drafted in 2006. With regard to the 'project' mentioned further on within the study, which commenced works prior to 2006, the minimum capital required was according to the latter percentage.

IMPORTS AND EXPORTS

When dealing with trade in and out of Libya, the importation of goods concern many factors. However where exporting is concerned, Libya exports a high level of hydrocarbons (95.7%) (IMF,2006). For this study, the 'project' (mentioned later) refers to an investment falling under Investment Law (Executive Regulations, Law No.5, 2004). Therefore, values in table: 2, related to export are not applicable.

TIME FOR REGISTRATION

The time taken in days, for a company to file for registration until final decision, currently stands at a seventy day period (Executive Regulations, Law No.5, 2004). Nonetheless, a recent decree of the General People's Congress (Decree 169/2005), has stipulated that the aforementioned process should not take longer than ten days. Certainly, a step in the right direction, but it remains to be seen as to how effective this Decree is in practice.

Therefore the following table (Table: 2), will provide an overall comparison of the various countries in which 'Alpha' chooses to function. Their respective ranking (Doing Business, 2006) is established. The table will clearly indicate that 'Alpha' operates with ease in countries of varying backgrounds, with political and economic structures. With their experience, they are in the enviable position of having competitive advantage over other businesses with similar investment projects.

		National characteristics ('Doing Business in 2006: creating jobs', World Bank,2005)	OECD belgium	EECA czech republic	EECA hungary	MENA libya	SE mediterranean country	OECD portugal	EECA russia	SSA sudan	SSA togo	MENA tunisia	EECA turkey
1.1		ease of doing business (rank) /150	18	41	52	102	25	42	79	150	149	58	93
1.2	income	low								x	x		
		low middle										x	
		upper middle		x	x	x			x				x
		high	x				x	x					
1.3		GNI per capita (US$)	31,030	9,150	8,270	11,400	13,590*	14,350	3,410	530	380	2,630	3,750
1.4		population (m)	10.4	10.2	10.1	5.96**	0.4	10.4	143.0	33.5	4.9	9.9	70.7
		starting a business:											
1.5	1.5.1	procedures (number)	4	10	6	20^	16^^	11	8	10	13	9	8
	1.5.2	time (days)	34	40	38	70^	42^^	54	33	38	53	14	9
	1.5.3	cost (% of income per capita)	11.1	9.5	22.4	9.0^	4.0^^	13.4	5.0	68.1	218.3	10.0	27.7
	1.5.4	min. capital (% of income per capita)	13.5	39.0	79.6	1.7^	2.5^^	39.4	4.4	0.0	459.9	29.8	20.9
		paying taxes:											
1.6		total tax payable (% of gross profit)	44.6	40.1	56.8	35.0***	35.0	45.4	40.8	/	50.9	52.7	51.1
		trading across borders:											
1.7	1.7.1	documents for export (number)	5	5	6	n/a	5	6	8	9	8	5	9
	1.7.2	signatures for export (number)	2	3	4	n/a	4	4	8	35	8	8	10
	1.7.3	time for export (days)	7	20	23	n/a	14	18	29	82	34	25	20
	1.7.4	documents for import (number)	6	8	10	8	4****	7	8	15	11	8	13
	1.7.5	signatures for import (number)	2	4	5	8	4****	5	10	50	14	12	20
	1.7.6	time for import (days)	9	22	24	35	1****	18	35	111	43	33	25

OECD	Organisation for Economic Co-operation & Development
EECA	Eastern Europe & Central Asia
MENA	Middle East & North Africa
SSA	Sub-Saharan Africa
SE	Southern Europe

*	World Bank,2006
**	Economist Intelligence unit: Country report, Libya, 2006
***	Doing business in Libya; A USLO country commercial guide, 2006
****	Freeport, Mediterranean Country
^	Executive Regulations for Law No.5, issued by Decision of General's People Committee No.138, of 1372PD, 2004
^^	A Guide to Investment Services, Financial Services Authority, 2005

Table 2: National characteristics: countries in common with 'Alfa'

Libya, although still viewed as an emerging country, has great wealth in hydrocarbons, as previously mentioned. Libya falls somewhere between Tunisia ranking 58th and Togo and Sudan who rank much lower on the scale (see above, Table: 2). Sudan by comparison being a very poor country, Libya has great potential. Business has opened up and Libya clearly indicates a desire to trade with Europe and elsewhere. They welcome investment in their country, especially since the sanctions have been removed.

3.2 Project and National Characteristics

3.2.1 Tripoli City

In the heart of Tripoli city, in the central business district, 'Alpha' was appointed by the 'Hotel Investments Company Limited' to build a hotel and to act as overall project managers, construction managers, management contractors and quantity surveyors. The extensive two curved tower design included the construction of a 300 room 5-star hotel, with conference, banqueting, health facilities and an adjoining 10,000m^2 commercial centre.

Located at the central coast of North Africa, the country is characterised by four major ecological regions, each of which contains a series of discrete micro environments. The regions are the north western (Tripolitania), north eastern (Cyrenaica), El-khalij southern zones (Fezzan). The north western zone, in which Tripoli city is located, extends from Tunisia in the west, to the Gulf of Syrt in the middle of the country in the east and from the Mediterranean Sea in the north to the southern region (Fezzan). The region consists of three major zones, the coastal and Gafara plain, the gable (mountainous) and the pre-desert zone (Appendix D, Figure: 5).

Tripoli city is the largest city in the country, where approximately 25% of the Libyan population live. Tripoli's metropolitan area at present spreads about 30km from west to east along the coast and about 8km from north to south.

Tripoli city is the main transport point in the country and is also regarded as the main connection point to the rest of the world. Modern roads connect the city with other areas in the country, westward towards Tunisia and eastward towards Egypt. It is recognised as the main commercial centre of Libya in terms of east and west trade. It has one of the largest ports of the city mostly used for the export of petroleum and the importation of goods. It is a free trade zone.

Libya, especially Tripoli, is rich in history (Appendix C; Table: 9). The city has been dominated by many different nations, the Phoenicians, Carthaginians, Romans, Muslims, Spanish, the Ottoman empire and latterly the Italians. However on September 1st 1969, the Libyan political system was changed from a monarchy to a republic, and was re-named the Great Socialist People's Libyan Arab Jamahiriya.

After discovering oil in the mid 1960s the Libyan national economy became solely dependent on oil exports and derivatives of oil products. As a result, the country became very rich. This led to major development in all fields such as housing, transportation, education, health and industry (Appendix C; Table: 6).

3.3 Company Profile

The 'Hotel Investments Company Limited', parent company to 'Alpha' started out in 1962 and now owns and manages thirty-one hotels in eleven countries. They are an international investor, developer and operator of luxury hotels and resorts in Europe and Africa. They adopt a straightforward strategy, operating with various competencies, in four business disciplines, which are; the investment and acquisition of prime site hotel real estate, the management of luxury hotels, industrial catering and the construction and the provision of project management services.

3.3.1 Company history

As previously mentioned the 'Hotel Investments Company Limited' has forty years of experience in the hospitality industry. It began in 1962 with the acquisition of an Art Nouveau villa in the Mediterranean which was converted into an up market restaurant in the grounds of the restaurant.

The Restaurant soon became well-established as an essential part of the Island's social scene. Because of its success, the company decided that the next stage would be to broaden their horizons and, in 1968, the 'Hotel Investments Company Limited' opened their first hotel.

Today, the company has a fast growing hotel operation with thirty one, four and five star city and resort hotels, with a room inventory in excess of six thousand (6000), in Belgium, The Czech Republic, Hungary, Libya, the Mediterranean, Portugal, Russia, Gambia, Togo, Tunisia and Turkey. It takes pride in keeping alive the local characteristics and individuality of each of its hotels, wherever they are located and respects local culture. Outstanding service is what the Company strives for, to ensure that its guests enjoy each hotel's distinct style and tradition.

The company looks towards present and future growth with a confidence born out of long years of experience in the hospitality sector and the inherent desire of achieving excellence in all its activities.

While in 1975, turnover stood at US$7 million, by 1997 it had increased to more than US$160 million. Similarly, in 1975 the total labour force was around four hundred (400) by the end of 1997, this exceeded the five thousand (5000) mark. The value of the company rose from a level of US$7million in 1975, to US$400 million in 1997 to a further US$1 billion in 2005.

3.3.2 Type of hotels they build

The company has established itself in all the above mentioned countries. It owns and manages a range of hotels from one hotel, up to four hotels with four and five star status in each country. In terms of location, the hotels are more often than not conveniently located, easily accessible to the city's focal points. Strategically positioned on the side of river banks, in the heart of central business districts, perfectly situated at waters edge, encircled by magnificent views and positioned on unspoilt sandy beaches. All ideal settings befitting luxury city and beach hotels.

These hotels are impressive architectural landmarks with unmatched standards ranging from a one hundred and fifty five room hotel up to a large five hundred and twenty six room hotel. Having set new standards of excellence in luxury five star city-centre hotels, they offer comfort and unique facilities. Many have received awards including "Best WORLDHOTELS" in 2004, recognised as the "Best Five Star Hotels" (2004), "Best Wellness Hotels" (2004) and "Best Hotel Architecture in Europe" (2004).

Six out of the thirty-one hotels are exclusive to a premier collection. One of which is under discussion in this study and this is Tripoli city. This particular location had been chosen to act as a benchmark. Tripoli city is steeped in historical culture, with focal points of elegant hospitality and this hotel was constructed to take advantage of the waterfront's skyline, where it is in a prime position.

3.3.3 Countries where the 'Hotel Investment Company Limited' operate

The specific locations chosen by the 'Hotel Investment Company Limited' are not solely based on whether the country is 'developed' or in a state of 'development', when the company choose a specific location in any country they do so to take advantage of the projected rate of return for their investment.

A "developed" country is defined to hold high values in all the following; human development index (HDI), Income per capita and gross domestic product per capita (Appendix: B). Subsequently Belgium, Czech Republic, Budapest, Portugal and the Mediterranean are all "developed" as opposed to the Russian federation, Tunisia, Turkey and Libyan Arab Jamahiriya which are considered to be "developing" countries. In respect of Togo and the Sudan, these countries are found to have an HDI less than the world weight average (International Monetary Fund, 2006) (Appendix: B).

Operating in many of the chosen countries, it is necessary to compile procedural requirements within specific aspects when doing business, this is mandatory, yet in some countries, these procedures tend to be lengthier than in others (Appendix: C; Table: 5). With respect to exporting and importing standardised cargo, a procedure is in place from the time the necessary documents are prepared to the time the cargo is in 'Alpha's' warehouse. The preparation of pre-arrival documents, accounts for more than half the time. The time when the cargo is at sea is not counted. Once the pre-arrival documents have been completed, the counting of time stops, it starts again when the ship is docked. If the destination is a landlocked city for example, Budapest, the time for inland transport includes transit time (World Bank, 2006).

When operating in both "developed" and "developing" countries, the analysis of the return on investment is an increasingly important topic for the financial controllers of the company for they need to find ways to justify the high investments made across a broad range of marketing and sales activities. Yet it is within the "developing" countries, where even though the time to start a business is lengthy and the number of complicated regulations are endless, the cost and minimal capital required to commence is a relatively small percentage (Table: 2). Subsequently, the price of land, the use of local labour and the costs of water and electricity are all relatively cheap, when compared to their respective costs in "developed" countries. Hence, the rate of return increases drastically owing to the lower standard of living that exists.

3.3.4 'Alpha'

For the purpose of this study, 'Alpha' was created out of the need for the 'Hotel Investments Company Limited', to ensure that its hotels are built within agreed budgets, timeframes and to the required specifications.

'Alpha' provides expertise in the field of Project Management. Their growth and reputation is based on rigorous adherence to job and time programming, strict cost control, technical quality assurance, design co-ordination and most importantly immediate responsiveness to the company's needs, throughout the whole project.

They have worked with leading independent international consultants and contractors and the company is therefore assured of unbiased advice. Throughout its years of experience (since 1980) in the construction and refurbishment of hotels, 'Alpha' is qualified to provide the company and other clients with sound advice on the design and operational functionality of projects related to the hospitality industry.

The range of services that are provided, are tailored to the specific needs of the company/client and include many of the following; client representation, concept assessments, building and construction design, project management, construction management, cost control, planning services, procurement, quantity surveying, technical supervision and value engineering. In providing such services they can effectively manage the company's risk throughout the life of any project.

Chapter Four **Case study: 'The project'**

4.1 Introduction

In the previous chapter we dealt with information regarding the history and profile of 'The Hotel Investments Company Ltd' as well as a description about 'Alpha' and a detailed description on Tripoli.

Within the following sections of this study, the extensive research was based upon the 'project' in Tripoli (Appendix D; Figure: 5). This particular project was chosen due to the difficulties encountered during the finance of contract of works from variations in estimated to actual values. Geographical conditions and the adoption of complex design caused delays, incurring difficulties into the construction of the 'project' and an additional difficulty was the logistical issue due to the dependency on the importation of goods. The following data will include the highlighting of risks within the various areas mentioned at the beginning of this study in Chapter Two.2.4.

4.2 Interviews with experts and key figures

Nachmais (1976), Silverman (1993) and De Vaus (1996), say that certain people can provide valuable sources of ideas and can help to add value to research since high quality responses are possible and could supplement facts about a project.

Face to face interviews with academics, professionals and key figures were conducted. These were semi-structured and recorded at the interviewees consent. Therefore a series of direct questions were used in the interviews to obtain their opinions.

These interviews were designed to collate data and information from the expert interviewees, especially technical data and definitions that a lay person could not provide. Appendix E, is an example of the questions asked.

4.3 Chronology of works: Tripoli project

The 'project' is the development of a hotel and a commercial centre of forty-two thousand (42,000) square meters which later on into the project was expanded by adding a further nine thousand nine hundred (9,900) square meters. The site is in the centre of Tripoli. The hotel includes two hundred and twenty luxuriously finished rooms and eighty executive suites in two tower blocks. A luxury entrance and lobby, six restaurants, an extensive executive lounge, multipurpose conference and banqueting facilities, a health club and fitness centre with a full size indoor pool, saunas, an outdoor pool and 10,000m^2 commercial centre.

The 'project' also features underground car parking facilities for up to one hundred and ninety three vehicles, as well as extensive over ground parking and gardens enclosed by a decorative boundary wall. View Appendix C; Table: 7, for a detailed description of the 'project's' parameters.

PROGRAMME OF WORKS

A detailed table on the entire programme of works may be found in Appendix C; Table: 8 concerning works on design details and contract documents, bored piling and foundation works, (zone G) hotel low tower area, (zone F) hotel high tower area, (zone C) offices, (zone D) commercial centre and external areas and landscaping. The master schedule indicates that the scheduled and actual finish had not corresponded to the same dates. Delays of fifty-eight weeks and six days were stipulated due to various factors, discussed further in the following data of this chapter. The schedule start and actual start coincided for design details and contract documents dated 4th May 1998. On the other hand the 'project' was estimated to have the last remaining works relating to the fitness centre scheduled to finish on the 12th August 2003, however the actual last works related to the presidential suite on the twenty-third floor of zone G having an actual finish date of 28th October 2004.

EMBARGOES

It is important to note that in April 1992, United Nations sanctions against Libya were put in place, this occurred prior to commencement of works. Then, in November 1993 the United Nations Security Council called for an additional tightening of sanctions and in July 1998 congress passed the Iran and Libyan Sanctions Act (ILSA). The country's embargoes made it more difficult for the 'project' to be implemented. However, notwithstanding the added pressure and restrictions, the 'project' went ahead and was completed in October 2004 (Appendix C; Table: 9).

In Appendix C; Table: 9 highlights the vulnerability of the 'project' for difficult circumstances existed throughout the 'project'. This list includes key dates referring to both Libya and the 'project'. The dates take into account the sanctions imposed by the west in relation to free trade, movements concerning the exchange rates, restrictions regarding weapons of mass destruction (WMD) and various dates referring to the start of the scheduled 'project', the date of the hotel's 'soft' and 'official' opening and its actual completion date.

4.3.1 Funding

Due to 'Alpha's' parent company already owning and managing other investments in Libya, prior to the sanctions being imposed, they already had a vested interest in the country and a good working relationship already existed. The company did not have a hotel. In addition, due to the company investing in business ventures other than in the hospitality industry it was a natural progression for them to take the decision to build a five star deluxe hotel, creating a 'landmark' building in an original design which justified the inclusion of Libya in the continuation of the company's chain of hotels.

DEPENDENCY ON ALTERNATIVE FUNDS

The risk in taking such a 'project' on, was related to a risk which was identified post 1998, after conceptual talks had taken place. When taking on this 'project' talks stipulated that ongoing funding for this 'project' shall be aided by other incoming funds elsewhere within the company. Yet such funds were shortly after unexpectedly interrupted and necessary funds were required for the 'project' to be completed. In hindsight, it would be safe to assume that no other project whatever the scale, be dependent upon funds from another project. The development must seek to achieve full funds prior to construction, so as to be risk adversarial. Funds were then sought from both local and foreign banks, at reasonable rates of interest, making it possible for completion to be carried out.

ORIGINAL BUDGET

At the end of October 2000, the projected budget increased by 14.4% over the original projected budget estimated in March 1999. At the end of March 2001 the budget increased a further 12.7%. Due to certain changes, mentioned later on in the study, in February 2002 the value of the original budget increased by a further 1.9%. Final budget figures dated September 2002 resulted in an overall increase of 36.4% over the original budget.

Funding for the 'project' was increasing as the 'project' progressed with works. This was due to unforeseen circumstances discussed later on within the study. However if a more formal risk management structure were to have been stipulated, at commencement of the 'project', then such costs may not have been incurred.

EXCHANGE RATES

Another factor in the increase from the original budget was due to the fluctuating exchange rate movements which did not favour the dollar at the time. In March 2004 the reached figure amounted to US$3.21 million over what was originally anticipated in 2002. This increase was mainly due to a major design change covering an extended landscaped area.

It was assessed that when such rates were compared to other similar rates in Europe and the Middle East, it was considered to be value for money for the client. Taking into account the added cost of working in a country under economic embargo and all materials apart from sand, aggregate and water having to be imported, the costs of building on reclaimed land in high winds and in a high risk earthquake zone, the choice of design (single loaded corridor) and the cost of accelerating works to complete the 'project' in record time, all justify the final budget of the 'project'.

4.3.2 Ground conditions

At the start of the 'project', in 1998, although no official geographical statistics exist for Libya, a situation analysis for Tripoli had been carried out and findings had resulted in the investigated 'project' area being based on reclaimed land. The area is a one hundred and fifty meters from the Mediterranean Sea and has an elevation between 3.22 metres to 4.56 meters above sea level.

Fieldwork took place in June 1998. This included bore hole drilling, collection of samples of soils, rock and ground water, penetration testing of soils, ground water level measurements and seismic refraction testing. All fieldwork was completed within the twelve week allocation.

CRITICAL TIME MANAGEMENT

When casting took place of the raft foundations for zone F (low tower) and G (high tower), the concrete pours were of significant magnitude with zone F having a continuous pour of 2,727m^3 in 33 hours and Zone G, a concrete pour of 5,300 m^3 in 48 hours. The risk here involved the possibility of misallocation of timing. Time was of the essence; hence 'Alpha' treated this risk by ensuring all parties were well prepared. The pour had to be made continuously by a sufficient amount of good grade concrete, readily available on site. Temperatures reaching close to forty degrees Celsius required the necessary retardants to be readily prepared so as to avoid concrete setting whilst being poured. Water and ice bowsers were also on hand to assist in cooling when needed.

Subsequently, due to such extensive preparation, the professionals forming part of this delicate process were all anticipating what needed to be done, enabling smooth process to be achieved.

SCHEDULE OF WORKS

The bored piling and foundation works contractual start date and actual start date was April 1999, with an actual finish date preceding the contractual finish date by three months, i.e., February 2000. In Appendix C; Table: 11, a total number of three hundred and eighty five piles were utilised on site. Each pile having lengths of seventeen and twenty three meters giving a total length of just over eight thousand five hundred and seventy meters.

In Appendix C; Table: 8, a list of dates refer to the main areas within the 'project'. It clearly indicates that four out of nine areas were completed either prior to, or according to schedule, with the exception of the following five areas; the low tower area, the high tower area, the offices, the commercial centre, together with the external areas and landscaping which were all affected and were delayed between four and sixty five weeks.

WORK LOAD INCREASE

Due to the high risk earthquake zone analysed by the site investigations group in 1999, a second report stipulated a change in design and the need to increase the working pile load from 450 to 525 tons. The designer needed to amend his drawings accordingly, therefore changing the pile length and diameter were mandatory.

The change to the pile load had not been anticipated; hence the risk identified caused a delay of up to six months in the construction progress, as an increase in reinforcement was required within the foundation works. This risk was handled by adopting a second shift system during the night, commencing in November 2000, thereby accelerating the works.

BUDGET INCREASE

Another risk associated with the design changes, was an increase in the budget period ending March 2001. The design changes mentioned above involved additional piling works amounting to US$487,580 and additional steel reinforcement bars at an additional cost of US$5,251,191.

Subsequently, if the necessary risks were listed into a more formal structure, it may have been possible to predict and identify the above such changes both in design and in costs. It would have been ideal for the second site investigation report to be written and completed together with the first report which was drafted in 1998, so that with full prior knowledge, the works could commence.

By adopting a more formal structure such as implementing a risk register (Appendix A; Figure 4) 'Alpha' would have been able to facilitate the identification of such risk priorities. It would have been possible to understand the reasons for decisions made about what is and is not tolerable exposure. In turn this would facilitate better recording of the way in which it is decided to address the risk. This would allow all those concerned to have access to the risk register and view how their areas of responsibility fit into the construction process and finally facilitate review and monitoring of such risks.

4.3.3 Design

In January 2001 (Appendix C; Table: 10), there were difficulties. The builders were prevented from continuing due to late receipt of work. Structural members were redesigned, there were office staff shortages and lack of procedures causing errors to occur on site. Thus, 'Alpha' sought to reduce such risks by proposing a set of office procedures so as to standardise and computerise drawings, control and monitor the issue of both construction and design drawings, improve checking procedure, both in the office and on site and improve approval procedures so as to minimise time. Together with the above, by the appointment of further architects and experienced architectural technicians and by the involvement of other departments such as the construction managers, avoidance of staff shortages was achieved.

Seven months later in August 2001, new tracking and expediting of information and document approval was enabled. This forced the reviewer to return documents within ten days and requests sent via a specific format were tracked against a 'Date of Returns' policy. Hence the risk in tracking office procedures efficiently was immediately reduced upon the introduction of the above.

For the detailing of architectural drawings to be commenced, 'Alpha' added three departments so as to aid with the production. By doing so 'Alpha' facilitated ease in handling design changes, construction detailing and co-ordination between various trades and maintenance checks.

4.3.4 Construction

CALL FOR TENDERS

A significant factor was the perception of risk by international contractors who were invited to tender for the structural works. The bids received for the works were double the allocated budget and assessments indicated that the bidders had written off the cost of all the plant and equipment required for the works over this one 'project'. Costs were further increased to cover the perceived country risks both political and economic. Also, due to the fact that certain materials were not available locally, and there were quality issues on reliability of supply, the bids were further inflated. An example of one bid may be seen in Appendix C; Table: 12.

The bids in Appendix C; Table: 12 first ranged between a 20% and 49% increase in costs over costs stipulated by 'Alpha'. After revisions took place a second set of percentages still ranged between 19% and 24% which was an increase over 'Alpha's' revised offer. The first set of percentages were calculated with the first original budget of 'Alpha' acting as a benchmark, comparing its value to the values obtained by Companies A, B and C. The second set of percentages were revised by 'Alpha' as a second benchmark for the revised values submitted by Company B and C.

It was as a result of these excessively high percentages that the 'Hotel Company Investments Limited' decided to undertake the works itself and appoint 'Alpha' as its contractor for the structures and civil works, as well as the client's representative, project and cost manager for the development.

Even though in most cases the above responsibilities ideally are taken on by separate and distinct parties, in this scenario costs truly reflected the actual costs of the 'project'. No mark-ups were made with commissions and fees. Due to 'Alpha' acting as a subsidiary to the client's company, they consequently worked within the best interests of the client.

INSUFFICIENT DETAILING

Another significant factor in delaying construction works was the detailing of construction drawings. Such drawings were not up to specification, and omitted details, therefore work on the drawings needed to be repeated. In fact the structural team were required to re-draw from 'scratch' most of the construction drawings, basing them on the previous set of drawings. Since the risk was only identified when the first set of drawings reached the site, it was too late to avoid time overruns therefore 'Alpha' treated this risk by adding pressure on the construction team to reproduce the drawings so that work on site could resume in the critical areas (zone F and zone G).

LATE ARRIVAL OF INFORMATION

In zone F and zone G; recurring delays were experienced due to late issue of builders work drawings. Late arrival of information often held up concreting works due to last minute modifications to reinforcement details. To avoid the risk in delaying the 'project' in November 2000 a double shift system was implemented on zone G to accelerate works. The first shift commenced at 06:30hrs until 17:00hrs and the second shift commenced at 19:30hrs finishing at 06:00hrs. This allowed for adequate labour, to be allocated to areas requiring increased production, which in turn increased the workforce by using more Asian tradesmen to alleviate the risk.

RELIGIOUS FESTIVITIES

A further setback was experienced due to Ramadan, when Muslims working on site would leave daily at 14:30hrs, which left the workforce extremely depleted and due to travel difficulties during these festivities Muslims were commencing the night shift at 20:00hrs. Which meant the rate of progress automatically lost considerable ground.

RECRUITMENT OF PROFESSIONALS

Between the critical months of September through to November a lack of construction managers was evident. When foreign senior management were working on site, their working weeks were five weeks on site and two weeks home leave. Therefore, when the design manager was on home leave, the lack of personnel affected both the design and drawing production. 'Alpha' identified the lack of professionals on site and appointed an assistant construction manager to remove this risk.

In hindsight, having two construction managers on site did create pressure when either of them were on their stipulated home leave. Many of the difficulties occurring on site, whether mechanical or construction related would have to be accounted for by one person. Work spilling over from the first shift to the second shift extended working hours, possibly affecting the on-site manager's performance. More personnel were appointed thereby easing the pressure of the workload, subsequently alleviating the risk of loss of professional personnel.

CUSTOMS AUTHORITIES

An added risk concerned the delays with customs authorities. Tripoli docks hindering the release of materials held in containers, effectively dictated the labour levels being employed. This was a critical constraint of the 'project' since it dictated its speed and also resulted in works being undertaken out of sequence and loss of focus on the critical path. The way 'Alpha' dealt with such delays was to temporarily deploy operatives to other areas of the site, 'buying' time for when the containers were to be released.

APPLICATION OF VISAS

Visas have always been required for people of non Magreb countries. Prior to entry into the European Union, workers from the Mediterranean were exempt from this rule. After accession to the EU the workers that were used were subject to obtaining visas to enter Libya. Therefore 'Alpha' took up a policy of trying to minimise this risk by appointing tradesmen, (as many as possible) from countries that did not require entry visas i.e., Bangladesh, Ghana, India and Pakistan. Labour was much cheaper by using workers from the Indian sub-continent (Appendix C; Table: 13).

LANGUAGE BARRIERS

Difficulties arose with language, as many of the tradesmen on site spoke languages other than English, resulting in a high level of misunderstandings on site. 'Alpha' chose to eliminate the risk by appointing English speaking foremen who could communicate to the tradesmen in their own language. The workforce was divided into two main work areas, steel fixers and formwork labourers. Each area was then segmented into smaller sized groups of six to ten people per group per shift. The leader of each group was chosen not only for their skills capability but also on their ability to communicate both with the foremen and with the rest of the group.

Due to the necessary actions that had been taken along the process of the 'project', to the hard work, effort and total commitment of the site team, the 'project' was completed in fifteen months. In November 2000, it was estimated that a typical floor required eighteen days to complete, in December 2001 it was achieved in fourteen days and a further acceleration in January 2002 speeded up progress to ten days per typical floor.

4.3.5 Operations

RATE OF RETURN

In 1997, the 'project' was estimated to cost US$90 million. Raising 45% of the funds and seeking to borrow the remaining 55% in the form of long-term loans. Once the 'project' opened for business, the change in gross operating profits ranged from 9.9% of turnover in 2003 to 46.5% in 2004 (the year the 'project' was completed), in 2005 there was a 51.6% gross operating profit and an estimated profit of 52.4% for the year 2006. In addition to the financial return on the investment, a continual appreciation in the property value increased to around 50% after five years.

TOURISM SECTOR

In 1997, no official tourism statistics existed for Libya. At the time, the key performance indicators were from two other five-star hotels in the region. Their figures were very encouraging; their current occupancies were in excess of 70% per annum, with average room rates in excess of US$140. The risk that existed was acknowledged by identifying the lack of statistics to base future projections upon and was treated by adopting a situational analysis on Tripoli by comparing the level of success of the 'project' to the success of the two five star hotels.

APPLICATION OF VISAS

As mentioned previously, the difficulty that arose in the construction stage in relation to obtaining applications for visas, when appointing foreign staff and labour, was hardly a difficulty at the time of operations. All visa applications were vetted in advance, therefore all were processed. The workforce grew in August 2001 with a percentage increase of 46.7% then there was a period of fluctuation. The reduction from 46.6% to 12.8% was due to the amount of work on site nearing completion (Appendix C; Table: 13).

RECRUITMENT OF LOCAL LABOUR

Within the Executive Regulations, it stated that foreign investments based in Libya, must choose to utilise local labour if skills are available, over the appointment of other foreign nationals. To avoid the risk of not satisfying Libyan Law, 'Alpha' utilised Libyan nationals, thereby increasing the percentage from 3.3% in April 2001 to 73% in June 2006 (Appendix C; Table: 13).

CORPORATE TAXES

In respect to taxes, the company had no tax risk in the short-term of opening. According to the Executive Regulations, under the Investment Law the 'Hotel Investments Company Limited' was exempt from corporation tax for the first five years (from commencement of operation) with a further three year extension period, allowing the investor to reap profits prior to paying taxes.

IMPORTATION OF DAILY COMMODITIES

When the hotel opened its doors for business, a difficulty was experienced relating to daily shortages in expensive commodities, such as exotic foods which was dependent upon importation and their release from customs.

EXCHANGE RATES

Yet another significant factor which needed to be addressed was the risk driven by the fluctuation of the Libyan Dinar. Over the past two years, 2005/2006 the Euro has increased by 20% over the Dollar, as a result, the Libyan Dinar has weakened in comparison to the strengthening value of the Euro.

In respect to the 'project', exchange rates are seen as 'calculated risks'. The hotel operates both in Libyan Dinars and in American Dollars thus, if the Dinar exchange rate falls, the 'project' would have had to pay higher costs on payrolls, yet benefits from interest rates on loans from Libyan banks would reduce respectively. Though, due to the possibility of converting rates, the hotel would conveniently accommodate itself with Euros. Therefore, even though there are both advantages and disadvantages in the fluctuation of exchange rates, a balance is reached and the 'Hotel Investments Company Limited' benefits from the fluctuation (the risk).

Chapter Five **Conclusions and Recommendations**

5.1 Introduction

This chapter provides the conclusion of the research carried out and creates the link with the theoretical issues and questions raised in the context. It will also provide some recommendations and suggestions. These recommendations are aimed to improve the existing awareness in using risk management processes to guide future development.

5.2 Risk management and Hotel construction in Tripoli

The main aim of this study has been to analyse and evaluate the procedures followed during the programme of works and the precautions taken when constructing in cities such as Tripoli. The study started by searching for a definition of risk management. Defining risks as:

> "....situations where the actual outcome for a particular event or activity is likely to deviate from the estimate or forecast value...." (Raftery, 1994)

In chapter two, different factors were highlighted with regard to Tripoli city, forces influenced the programme of works when foreign investment took place. The analysis seen in Table: 2, indicates that although time taken for a company to set up in Tripoli is laborious, owing to the amount of bureaucratic procedures, companies may face similar situations within other cities. In hindsight difficulties that arose in Tripoli are not generally specific to the city, yet are common difficulties encountered when constructing hotels on foreign territory.

The findings of this research were conclusions indicating that various delays and risks were dealt with during the development of the 'project'. Such issues indicated a master schedule delay of fifty-eight weeks and six days. This was not anticipated during preliminary discussions, in addition there were the costs of economic embargoes. The fact that all materials apart from sand, aggregate and water had to be imported. The costs in building on reclaimed land, high winds and the fact that the site was located on a high risk earthquake zone, the single loaded corridor design, and the cost of accelerating works to complete in record time, added to the complexity of the 'project'.

Full awareness of the above risks would have been assisted by the appointment of a formal risk management process so as to clearly prohibit and/or treat risks from occurring. The organisation may have been able to further enhance their levels of confidence, achieving desired outcomes, constraining threats and simultaneously exploiting opportunities.

The risk which materialised at the time of development was the inclusion of embargoes imposed by both the United Nations and the European Union (Appendix C, Table: 9). Such restrictions did not allow tourists to enter the country, if such sanctions had not been removed in time, then the projected rate of return would not have been realised. In hindsight, by adopting a formal risk analysis 'Alpha' would have been able to identify and deal with such risks and all parties would be informed on what they were responsible for, hence accommodating accordingly.

At conceptual stage when the 'project' was to be aided by incoming funds of current business ventures, one risk which the 'Hotel Investment Company Limited' had to face was the scenario of not being able to depend on such funds. Any development must rely on being fully funded prior to commencement of works so as to reduce the chance of risk and/or the works not being completed.

In fact, comparing the original budget (1999) to the final projected budget of 2002, a 36% increase had been noted. Funds for the 'project' were increasing as the 'project' progressed with time. Such increases were due to design changes which stipulated the need to increase the working pile load, thus causing amendments to drawings, which all added to delays.

Such costs may have been spared if full knowledge of ground conditions had been known prior to commencement of the 'project'. Risks related to such increases in costs and delays would have then been controlled and prevented by 'Alpha' through the use of a risk register as seen in Appendix A, Table: 4, possibly avoiding the need of introducing the second shift system for works to accelerate.

Delays occurring due to repetition of work when handing over information from one third party to another, and setbacks due to religious festivities leaving the workforce extremely depleted as well as the difficulties in releasing materials held at customs, effectively dictated the labour levels being employed. However even though 'Alpha' did not see to this through a risk register 'Alpha' identified the risk by temporarily deploying operatives to various other areas of the site, as was the case when containers of materials were not released in time.

The above indicates the avoidance of a formal risk analysis and still allows for the possibility of attaining a potentially viable project. The project shall still yield the rates of return that justify the quality of the project; so that the final outcome will be achieved. Yet it is the process in which the final outcome is accomplished that needs to be brought to ones attention. Through the adoption of a formal risk management process, risks may be identified at a stage which leaves no permanent damage on both the client and the project.

At the end of the investment life-cycle, or prior to the 'project's' termination, a retrospective review is implemented in relation to the investment, its success as a business venture and, where possible, a history on the risks encountered. By applying such a formal risk management process, the level of contribution obtained and effectiveness reached may be analysed and referred to for future business ventures.

5.3 Key Findings

The following table highlights the areas that were specified in chapter two and are documented in the risk register; funding, ground conditions, design, construction and operations. This table refers to the risks which 'Alpha' encountered and which should have been addressed.

risk register	risk response					monitor	
	reduction	avoidance	transfer	retention	delay	control	regular
funding:							
obligations to client				client informed & involved		early complete information	building relationships
dependency on funds	alternative funding	identify & prioritse costs for all elements					client audits design meetings
exceeding of budget	identify & prioritse costs for all elements	realistic bill of quantities	contractual agreements			early complete information	
change in scope of design	clearly defined objectives						correspondence with appropriate specialists
embargoes				early complete information			meetings with statutary control
importation of goods & materials	advanced logistic times			early complete information			meetings with statutary control
acceleration of works						tight supervision	
ground conditions:							
reclaimed land	identify other alternatives	careful choice of site				tight supervision & testing equipment	meetings with specialists
high winds	identify other alternatives			high standard professionals invited			correspondence with appropriate specialists
high risk earthquake zone	identify other alternatives			high standard professionals invited			correspondence with appropriate specialists
concrete pours	co-ordination of teams					tight supervision	on-site supervision of works
change in design	client informed & involved	clearly defined objectives				design & progress meetings	
design:							
incomplete builder's work	high standard professionals invited	continuous number of tradesmen available				tight supervision	on-site supervision of works
single loaded design	high standard professionals invited	choice of design	designer liabilities			tight supervision	on-site supervision of works
redesigning		clearly defined objectives	designer liabilities			tight supervision & testing equipment	correspondence
office staff shortages	early complete information						progress reviews
quality of information on site	high standard professionals invited					tight supervision & testing equipment	spot checks
construction:							
tender setbacks		appointing in-house professionals			lobby against decisions	audit accounts	
insufficient detailing	high standard professionals invited	clearly defined objectives				tight supervision	on-site supervision of works
incomplete builder's work	high standard professionals invited	continuous number of tradesmen available				tight supervision	design reviews & on-site supervision of works
religious setbacks	time delays considered	continuous number of tradesmen available				design & progress meetings	correspondence
insufficient professionals on site	high standard professionals invited	professional assistants available				design & progress meetings	correspondence
custom authorities	consult with authorities	discussions at early stage				early complete information	build relationships with supervisors
visa difficulties	consult with authorities	discussions at early stage				early complete information	build relationships with supervisors
communication barriers	appointing skilled & literate foremen	adequate training				continuous supervision	construction reviews
operation:							
insufficient official statistics	clearly informed & involved	clearly defined objectives				audit accounts	correspondence
shortages in commodities	early complete information	pre-planning				progress meetings	reviews & meetings
fluctuation in exchange rate	operating in dual currency			hedge interest rates		audit accounts	reviews & meetings

Table 3: Risk Register for 'Project'

5.4 Recommendations

The more formal process of risk management will assist in the identification of risk sources, the quantification of their benefits and guidance on mitigation and management in order for the client's adviser to make a better decision.

The results of the research suggest some important recommendations that could be useful for present and future development to achieve a greater congruence between the management of risks and construction of hotels in cities such as Tripoli. A number of points, suggestions and recommendations have already been presented in previous chapters.

In this section some of the more major recommendations are highlighted. The object is not to produce a definitive policy, but to recommend some general principles improving the existing design and planning framework of risk processes within the construction of hotels. These have been categorised into two main issues:

Past risk development, were risks which were dealt with on a monthly basis, these were solved throughout the progress of the 'project', this created a learning curve as to how to deal with the risk within a short period of time and applying the resources available. If risks are not adequately tolerated, treated, transferred or terminated, consequently time, cost and/or quality overruns will arise, hindering the potential viability of a 'project'.

In fact this process is seen within the case study. 'Alpha', therefore adopted an informal method to managing risks. Although a delay of fifty-eight weeks and six days was accounted for, the 'Hotel Investment Company Limited' may have easily reduced the delay simply by adopting a more formal structure in assessing, identifying and responding to the risks.

It is essential that future risk development procedures are based upon a structured process of planning and initiating risk reviews, identifying risks, evaluating and mitigating the risks, assessing and planning the responses to residual risks and finally communicating strategies and plans. Releasing contingency budgets, as some risks materialise and other risk exposures change or disappear.

5.5 Future Research

It is hoped that this research will become a source of useful information and provide a platform for future research into risk assessment within the construction of hotels. It is also hoped that this study provides a contribution towards the study of project management in general.

As a Mediterranean city close to major European outbound tourism markets, it is clear that there is potential for Tripoli to develop a tourism industry, given its geographical position, natural resources and its rich cultural heritage. Yet due to the poor infrastructure, shortage of capital for local tourism companies and a lack of clear leadership from the public sector, the tourism industry is being seriously hindered.

From this study it was found that there was a lack of available information and data regarding property development in Tripoli city. There is a need for more detailed studies on political and trade environments. This would provide foreign investors more information when dealing and managing risks within the municipality of Tripoli city.

5.6 Conclusion

The 'Hotel Investment Company Limited' chose to invest in Tripoli, making the company one of the first companies to invest in a project of such magnitude. By undertaking the process of development and by obtaining all the necessary resources in order to complete the project, core competencies evolved, providing them with a competitive advantage over other companies within the hospitality industry.

Although the company were fully conversant in hotel construction and had wide experience in managing hotels, they should have the necessary expertise, and take the correct steps in advance, to alleviate problems.

'Alpha Projects' who undertook the work, did not identify the need for using a formal structure of risk management procedures. This resulted in 'Alpha' solving problems during the lifetime of the 'project'. In turn, they encountered situations that could have been avoided and in addition would reduce the level of impact. They were totally unfamiliar with the processes of identifying, assessing, responding and documenting the risks. Although 'Alpha' provided solutions for every risk that occurred during the 'project' they should have investigated all risks prior to the work.

In summary, the 'Hotel Investments Company Limited' should have appointed risk analysts before the project commenced. They would have been properly guided in trouble-shooting and analysis in all respects. When a client appoints risks analysts, the client is assured that they will act in their best interests, thereby safeguarding their investment and deflecting threats.

In conclusion, the findings of this research identify the need to assess and implement all possible risks before they arise and to appoint those with suitable expertise in the field of risk management at the outset of any project.

Appendix A

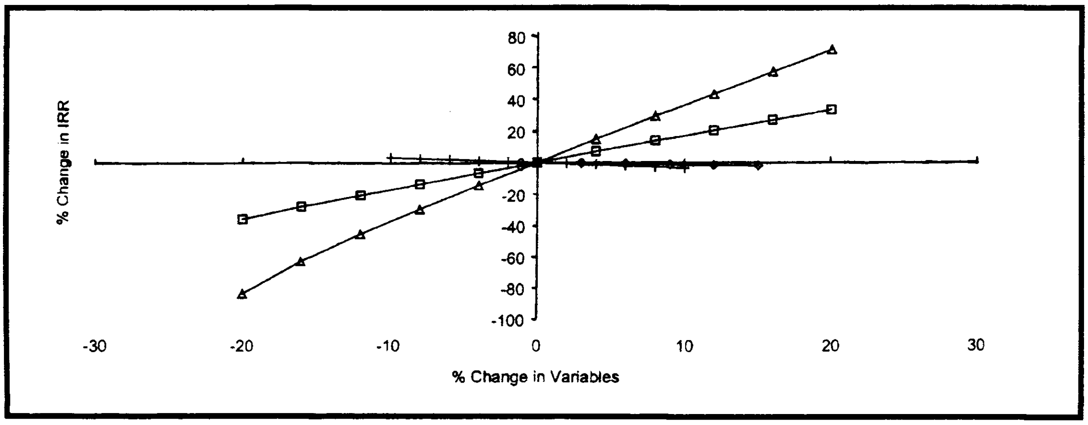
5.1 Risk management process: theoretical overview

The identification process can be separated into two distinct phases (Gayer et al, 2004). The first phase relates to the initial risk identification. This is relevant to an organisation which has not previously identified its risks in a structured way. The second phase relates to continuous or continuity of risk identification. This is necessary to identify new risks which did not previously arise, changes in existing risks or risks which did exist but which have since ceased to be relevant.

Those risks that have both a high probability of occurrence and which would have a high impact on the project should be most relevant to the risk analyst. The above phases should act as integral parts to the way in which a business is conducted. This would promote consistency and efficiency in the project.

The second phase relates to ensuring that the assessment of risk is identified. There are three important principles for assessing risk. The first principle is to ensure that there is a clearly structured process in place in which both the likelihood and impact of each risk is pre-empted. The second principle is to ensure that a proper record of the assessment of the risk is maintained in a way that facilitates monitoring and identification of possible ongoing risks. The third principle is to ensure that a clear distinction is made between inherent and residual risk.

The following diagram (Figure: 3) provides a sensitive analysis in aid of identifying the most sensitive risks which are more likely to have an effect on the success or otherwise of the project. The risks closest to the project's axis act as the most sensitive for the organisation (if they do realise). A small percentage change in the variable will lead to a larger percentage change in IRR. Note: the diagram runs as follows - % change in IRR (y-axis) versus % change in variables (x-axis).



(Kelly et al, 2002)

Figure 3: Sensitive analysis diagram

The third and final step for an appropriate risk management process involves the organisation's response towards the risks identified. The purpose of addressing risks is to turn uncertainty into damage limitation for an organisation by constraining threats and taking advantage of opportunities. Any action that is taken by the organisation to address a risk forms part of what is known as 'internal control'. There are five key aspects in addressing this (Raftery, 1994):

TOLERATE

The exposure may be tolerable without any further action being taken. Even if it is not tolerable, ability to do anything about some risks may be limited, or the cost of taking any action may be disproportionate to the potential benefit gained. In these cases the response may be to tolerate the existing level of risk. This option, of course, may be supplemented by contingency planning for handling the impact that will arise if the risk is realised.

TREAT

By far the greater number of risks will be addressed in this way. The purpose of treatment is that whilst the activity takes place giving rise to the risk, action is taken to constrain the risk to an acceptable level. Such controls can be further sub-divided according to their particular purpose.

TRANSFER

For some risks the best response may be to transfer them. This might be done by conventional insurance, or it might be done by paying a third party to take the risk on. The latter option is particularly good for mitigating financial risks or risks to assets. The transfer of risk is an option when it is either required to reduce the exposure of the organisation to that risk, or when another organisation is found to be more capable of effectively managing that risk. Some risks are not (fully) transferable. In particular, it is generally not possible to transfer 'reputation risk', even if the delivery of a service has been contracted out. The relationship with the third party to which the risk is transferred needs to be carefully managed to ensure successful transfer of risk.

TERMINATE

Some risks will only be treatable or containable to acceptable levels, by terminating the activity. This option can be particularly important in project management if it becomes clear that the projected cost / benefit relationship is in jeopardy.

TAKING THE OPPORTUNITY

This option is not an alternative to tolerating, treating, transferring and/or terminating risks. Opportunities should be considered simultaneously. There are two aspects to this. The first is whether or not at the same time as mitigating threats; an opportunity has arisen to exploit a positive impact. The second is whether or not circumstances have arisen which, whilst not generating threats, offer positive opportunities.

5.2 Documenting risks

Documenting risk assessment leads to building a risk profile for the organisation. To facilitate the identification of risk priorities (in particular to identify the most significant risk issues with which senior management should concern themselves). It captures the reasons for decisions made about what is and is not tolerable. Exposure, facilitates recording of the way in which it is decided to address risk, it allows all those concerned with risk management to view the overall risk profile and establish how their areas of particular responsibility fit accordingly. Finally it also facilitates review and monitoring of risks, as seen in figure 4 (Institute of Civil Engineers et al, 1998).

Although the above process is generally undertaken in full only once, early in the life of the investment, it is necessary to reconsider and revise the results and objectives during subsequent risk reviews during the life time of the project. This will help not only to keep the client aware of any possible future risk that might occur once the project has commenced but the above information should also act as a useful reference point after the project has finished.

risk register	risk response					monitor	
	reduction	avoidance	transfer	retention	delay	control	regular
planning:							
obtaining all necessary statutary consent	consult with planning supervisor	discussing with planners at early stage			lobby against decisions	early complete information	build relationship with planning supervisor
the effect on programming	simulations		appropriate specialists		lobby against decisions	programme up to date	meetings with specialists
finance:							
funding	alternative funding	identify & prioritise costs for all elements					client audits design meetings
taxation (& any proposed changes in taxation)	identify other material solutions	accounts up to date				audit accounts	
programming	negotiate bulk quantities	available funding in-house				audit accounts	working meetings
labout & material costs	identify other material solutions	fixed price contracts	guaranteed maximum price		lobby against decisions		correspondance with appropriate specialists

risk register	risk response					monitor	
	reduction	avoidance	transfer	retention	delay	control	regular
design:							
functionality of space	high standard professionals invited	clearly defined objectives	designer liabilities			tight supervision	design reviews & on-site supervision of works
performance requirements	high standard professionals invited	clearly defined objectives	contractual aggrements		lobby against decisions	tight supervision	design reviews & on-site supervision of works
quality in terms of aesthetics & functionality	high standard professionals invited	clearly defined objectives	designer liabilities			tight supervision & testing equipment	design reviews & on-site supervision of works
reliability in use	high standard professionals invited	operations liability	designer liabilities	client informed & involved		tight supervision & testing equipment	spot checks
incomplete design scope	high standard professionals invited	client informed & involved	procurement routes		lobby against decisions	negotiations with contractors	progress reviews

(Institute of civil engineers et al, 1998)

Figure 4: Risk register

Appendix B

5.1 Definitions

HUMAN DEVELOPMENT INDEX (HDI)

HDI is a comparative measure of poverty, literacy, education, life expectancy, childbirth, and other factors for countries worldwide. It is a standard means of measuring well-being, especially child welfare. It is used by many people to distinguish whether or not the country is a first, second, or third world country.

The HDI measures the average achievements in a country in three basic dimensions of human development: A long and healthy life, as measured by life expectancy at birth. Knowledge, as measured by the adult literacy rate (with two-thirds weight) and the combined primary, secondary, and tertiary gross enrolment ratio (with one-third weight) and a decent standard of living, as measured by gross domestic product (GDP) per capita at purchasing power parity (PPP) in US Dollars (International Monetary Fund, 2006).

The following table (Table: 4) is a list of countries with which 'Alpha' is involved and it indicates the level of HDI each country holds.

Human Development Index		
(*'World Economic Outlook Database'*, *International Monetary Fund, 2006*)		
belgium	0.945	HHD
czech republic	0.874	HHD
hungary	0.862	HHD
libyan arab jamahiriya	0.799	MHD
mediterranean country	0.867	HHD
portugal	0.904	HHD
russian federation	0.795	MHD
sudan	0.512	<WWA
togo	0.512	<WWA
tunisia	0.753	MHD
turkey	0.750	MHD

Table 4: Human Development Index (HDI)

INCOME PER CAPITA

A group of people may be defined by their total personal income, divided by the total population. Per capita income is usually reported in units of currency per year.

Per capita income is often used as a measure of the wealth of the population of a nation, particularly in comparison to other nations. It is usually expressed in terms of a commonly-used international currency such as the Euro or USD, and is useful because it is widely known and produces a straightforward statistic for comparison (Table: 2).

GROSS DOMESTIC PRODUCT PER CAPITA

A region's GDP is one of several measures of the size of its economy. The GDP of a country is defined as the market value of all final goods and services produced within a country in a given period of time. Until the 1980s the term 'GNP' or gross national product was used. The two terms GDP and GNP are almost identical. The most common approach to measuring and understanding GDP is the expenditure method:

GDP = consumption + investment + government spending + net exports (Table: 2).

Appendix C

5.1 Tables

Days to complete each stage of importing ('*Doing Business in 2006*', World Bank, USA, 2005)		*pre-arrival documents*	*port & terminal handling*	*customs & inspections*	*inland transport to warehouse*	*total time*
OECD high income	belgium portugal	8	2	2	2	14
Middle East & North Africa	tunisia libya	25	5	9	4	43
Eastern Europe & Central Asia	czech republic hungary turkey russian federation	25	4	7	7	43
Sub-Saharan Africa	sudan togo	33	8	10	9	59

Table 5: Days to complete each stage of importing

National characteristics ('*World Factbook*', Central Intelligence Agency, 2005)	*libyan arab jamahiriya*
area (sq km)	1,759,540
population (m)	5.96
population growth rate (%)	2.30
birth rate (/1000)	26.49
life expectancy (years)	77
literacy (total population %)	82.6
government type	Jamahiriya; republic
capital	tripoli
inflation (%)	3.40
unemployment rate (%)	30.0
labour force (m)	1.64
public debt (% of GDP)	8.20

Table 6: National Characteristics; Tripoli City

Description of 'project's' parameters	area in sq meters
site area	51,900
hotel building footprint	12,620
hotel gross floor area	47,845
hotel underground parking	8,589
commercial centre & office block footprint	7,614
commercial centre & office block gross floor area	10,218
commercial centre & office block gross underground parking	6,107
landscaping external parking & roads	31,700

Table 7: Description of 'Project's' parameters

	Master Schedule of 'Project'	dates						
		schedule start	schedule finish	actual start	actual finish	actual duration (weeks)	according to schedule	delays (weeks)
1.1	**master schedule**	12/04/1998	12/08/2003	12/04/1998	30/10/2004	449.19		58.6
1.2	design details & contract documents	04/05/1998	04/01/2003	04/05/1998	04/01/2003	287.04	x	
1.3	pre-construction works	12/04/1998	23/02/2000	12/04/1998	23/02/2000	95.8	x	
1.4	bored piling & foundation works	28/04/1999	01/09/2002	28/04/1999	01/09/2002	207.56	x	
1.5	zone A - hotel low tower area	02/06/2000	26/06/2003	02/06/2000	30/10/2004	339.19		64.4
1.6	zone B - hotel high tower area	06/09/2000	12/08/2003	06/09/2000	28/10/2004	325.16		58.3
2.1	zone C - offices	04/10/1999	28/05/2003	04/10/1999	25/06/2003	256.06		4.0
2.2	zone D - commercial centre	16/04/1999	10/06/2003	16/04/1999	30/08/2003	295.81		11.4
2.3	external areas & landscaping	27/01/2001	26/07/2003	27/01/2001	14/09/2003	206.41		7.1
2.4	exterior plastering	25/03/2002	03/02/2003	25/03/2002	03/02/2003	75.6	x	

Table 8: Master schedule of 'Project'

Key dates in Libya	chronology of events	
independence	24th december 1951	* opening of 100 rooms, restaurant & café.
national holiday	1st september 1969	
constitution:	11th december 1969	
amended	2nd march 1977	
cabinet - general people's committee	2nd march 2000	

Key dates in Libya & 'Project'	1992	1993	1996	1998	2001	2002	2003	2004	2005	2006
schedule of 'project':										
start				april						
sanctions:										
congress passes the iran & libya sanctions act (ILSA)			july							
UN sanction imposed	april									
UN security council adopted resolution No.883; calling for a tightening of sanctions		november								
senate extends sanctions on libya					july					
removal of remaining US & EU sanctions including EU arms ban								april		
er:										
exchange rates LD 0.65:US$1						january				
LD 1.30:US$1										january
free trade zone comes into force in tripoli									january	
libya elected head of the human rights committee							january			
schedule of 'project':										
'soft' opening*							april			
sanctions:										
US ease travel ban to libya							november			
US resumes ties with libya								june		
schedule of 'project':										
official opening							september			
wmd:										
qaddafi opens country to international inspections							december			
1st inspection of libya's nuclear facilities							december			
country abandoned weapons of mass destruction program							december			
sanctions:										
lifting the ban on EX-IM bank loans, OPIC guarantees & direct flights between US & libya								september		
schedule of 'project':										
finish								october		

Table 9: Key dates in Tripoli and 'Project'

Design Related Problems	january_2001	consequences
Builders work	late receipt of work drawings	delaying the production of construction
redesign of structural members	lack of information	additional pressure on the design office
partition loading	areas designed only for lightweight partitions	floors still to be constructed;
office staff shortage	architectural detailing not started	delays in issuing architectural drawings
quality of information to site	lack of office procedures	delays & errors on site

	august_2001	consequences
architectural details	lack of assistance	delays in finishes packages
office staff shortage	architectural detailing not started	delays in issuing architectural drawings
quality of information to site	difficulty in tracking 'project' procedures	delays & errors on site

	october_2001	consequences
complying with construction requirements	need to produce a further 150+ drawings	delays on site
modifications to the present design	difficulty in mobilising design teams	delays due to seeking acceptance of proposals
co-ordination required	changes, construction detailing, co-ordination between trades, maintenance checking	delays due to seeking acceptance of proposals

	september_2002	consequences
design changes to the original concept	new works required to complete	additional costs

Table 10: Design related problems

Piling data	number of piles	total length of piles (m)	average length of pile (m)
zone F (hotel low tower)	110	2,584.10	23.5
zone G (hotel high tower)	205	4,811.56	23.5
zone H (main entrance/foyer &restaurant)	19	324.00	17.0
tower cranes	11	187.00	17.0
other areas (early in stage: no zoning)	39	666.80	
grand total	**384**	**8573.46**	

Table 11: Piling data

Tender for structural works	*firm's original budget (euro)*	*company A (euro)*	*company B (euro)*	*company C (euro)*	*revised company B (euro)*	*revised company C (euro)*	*revised 'firm' (euro)*
back of house		1,111.000	1,111.000	1,111.000	1,111.000	1,111.000	1,111.000
banquet		1,111.000	1,111.000	1,111.000	1,111.000	1,111.000	1,111.000
business & conference centre		1,111.000	1,111.000	1,111.000	1,111.000	1,111.000	1,111.000
executive lounge		1,111.000	1,111.000	1,111.000	1,111.000	1,111.000	1,111.000
fitness centre		1,111.000	1,111.000	1,111.000	1,111.000	1,111.000	1,111.000
foyer		1,111.000	1,111.000	1,111.000	1,111.000	1,111.000	1,111.000
main restaurant		1,111.000	1,111.000	1,111.000	1,111.000	1,111.000	1,111.000
moroccan restaurant		1,111.000	1,111.000	1,111.000	1,111.000	1,111.000	1,111.000
pizzeria		1,111.000	1,111.000	1,111.000	1,111.000	1,111.000	1,111.000
pool restaurant		1,111.000	1,111.000	1,111.000	1,111.000	1,111.000	1,111.000
public toilets		1,111.000	1,111.000	1,111.000	1,111.000	1,111.000	1,111.000
shops & corridors		1,111.000	1,111.000	1,111.000	1,111.000	1,111.000	1,111.000
grand total	**1,000,000.00**	**1,000,000.00**	**1,000,000.00**	**1,000,000.00**	**1,000,000.00**	**1,000,000.00**	**1,000,000.00**
percentage increase (%)	**1st**	**34**	**49**	**20**	**24**	**19**	**2nd**

Table 12: Tender for structural works

Nationalities on site & during operations	october & november 2000	april_2001	august_2001	october_2001	february_2002	april_2002	june_2002	september_2002	operations june_2006
algerian	/	/	3	3	2	2	1	5	1
bangladeshi	/	161	224	253	276	342	323	435	/
bulgarian	/	/	/	/	/	/	/	3	/
cameroonian	/	/	/	/	/	/	/	1	/
chadian	/	/	3	3	2	3	3	2	/
egyptian	/	/	/	/	/	/	/	/	13
filipino	/	/	14	18	20	43	45	38	17
gambian	/	/	/	/	/	1	1	7	/
ghanian	/	/	2	2	2	2	13	14	1
indian	/	/	21	21	19	22	30	40	2
iraqi	/	/	4	4	3	6	5	4	/
italian	/	/	/	/	/	/	/	/	1
lebanese	/	/	/	/	/	/	/	/	1
libyan	/	19	15	16	12	16	17	21	361
malian	/	/	/	/	/	/	/	4	/
maltese	>100	115	115	118	118	118	94	84	24
mauretian	/	/	/	/	/	/	/	2	/
morrocan	/	/	/	/	/	/	/	1	35
north korean	/	31	32	33	28	29	/	/	/
nigerian	/	/	2	2	2	2	2	6	/
pakistani	/	193	374	459	433	405	277	232	3
romanian	/	/	/	/	/	/	/	1	/
sri lankan	/	/	/	/	/	/	/	/	14
sudanese	/	/	23	19	17	18	18	33	1
syrian	/	/	/	/	/	/	/	/	4
thailandese	/	/	/	/	/	/	/	1	/
tunisian	/	/	/	/	/	/	/	/	12
ukrainian	/	/	/	/	/	/	/	1	/
yemeni	/	/	3	3	1	3	2	2	/
labour workforce	290								
other nationalities		50							17
grand total	**>300**	**569**	**835**	**951**	**935**	**1,012**	**831**	**937**	**507**
percentage increase (%)			46.7	13.9	-1.7	8.2	-17.9	12.8	

Table 13: Nationalities working on-site and during operations

Appendix D

5.1 Map; Tripoli City

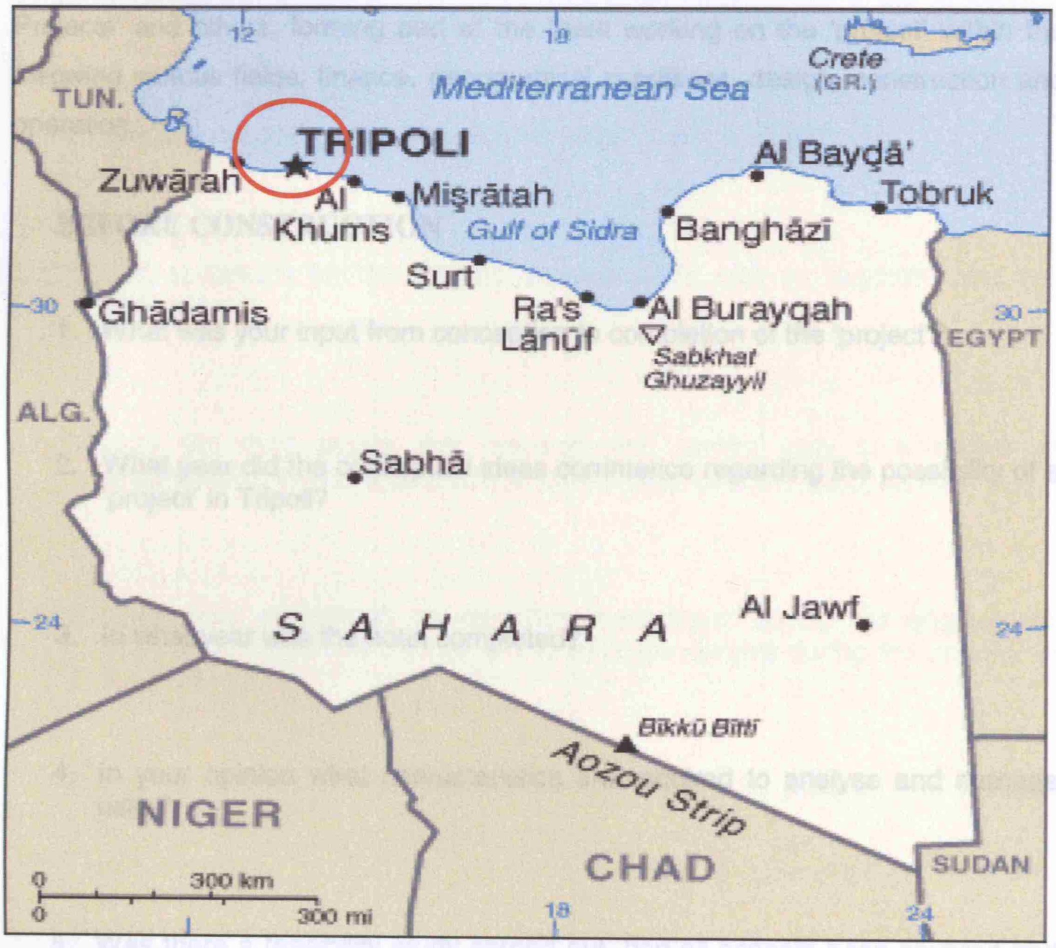


Figure 5: Map: Tripoli City, Libyan Arab Jamahiriya

(https://www.cia.gov/cia/publications/factbook/index.html)

Appendix E

5.1 Questionnaire

The following questionnaire was dated February 2006. Interviewees included professionals and academics from the 'Hotel Investments Company Limited', 'Alpha Projects' and others, forming part of the team working on the 'project' within the following various fields; finance, geographical conditions, design, construction and operation.

BEFORE CONSTRUCTION

1. What was your input from conception to completion of the 'project'?

2. What year did the conceptual ideas commence regarding the possibility of a 'project' in Tripoli?

3. In what year was the hotel completed?

4. In your opinion what characteristics are required to analyse and manage risks?

5. Was there a feasibility study carried out, had all aspects been covered and all information brought in-house before the study was completed?

6. Prior to 'Hotel Investment Company Limited' commitment to the 'project', what risk analysis was adopted within the feasibility study?

7. To recap on what costs were like:

   - the total investment costs for this privately financed project was estimated at ....million in (...........prices)
   - upon completing the project in ....actual costs turned out to be.........million (.............prices)
   - Was there a difference in the actual financing cost, was it higher than what was forecasted by ....%?

8. Was there a risk analysis adopted prior to the commitment to the 'project'?

9. What measures were taken so as to adopt a risk analysis?

10. Is it customary for the finance department to take on feasibility and risk studies?

11. How did they tackle risk management, and/or was it a matter of uncertainties, new location, new environmental or economical factors?

12. Were they considered as the "risk custodians" during the original risk analysis and how did the role of the custodian evolve during the process of the project?

13. In your opinion what characteristics are needed to analyse and manage risks?

14. In the annual report 2000, it was said that due "to refraining from signing any contracts with tendering parties" it was necessary to hire 'Alpha' as: contractor for the structural works, as managing contractor for the remaining works and as the client's representative and project and cost manager for the development.

    These are usually all independent and distinctive roles. Was 'Alpha' in a position to act objectively on all fronts?

15. Which of the following definitions best suits the setback of the 'project':

- Where the actual outcome for a particular event or activity is likely to deviate from the estimate or forecast value.
- Exposure to the possibility of economic and financial loss or gain, physical damage or injury, or delay as a consequence of the uncertainty associated with pursuing a particular course of action.

16. The company has a history in constructing or renovating hotels worldwide. Had a situation like this ever happened before or was this 'project' unique to the rest of the chain? (By unique, I refer to the conception of works, the preparation, the construction of the hotel, the finishing and methods used previously).

POST CONSTRUCTION

17. How did this situation occur, how did the company get themselves into such a situation?

18. Would you say that the initial cost estimate was unrealistic or would you say that it was not underestimating the costs, it was due to lack of incomplete information at the time?

19. Was there a seismic study adopted as part of the development brief, had one known the degree of seismic action?

20. Was the information incomplete, with regard to the geological report why were there delays?

21. Could the cause have been related to a lack of communication or misunderstandings amongst contractors, architects, engineers, or amongst different departments within the company or between the company and third parties?

22. In hindsight, what do you think went wrong during that period?

23. During the project's appraisal, was there a tendency towards a significant underestimation?

24. How were the risks managed after their level of severity was exposed?

25. How were the risks controlled?

26. Did you establish, identify, analyse, assess and treat the risks?

27. Were there any searches made looking for solutions which were broader to the immediate problem?

28. How does the actual viability of the project compare to the projected viability?

29. In your opinion were there any other factors that might have caused this setback other than what has already been mentioned?

30. How did the company manage to get themselves out of it?

31. From this experience, what has it taught the company, were there any lessons learned?

32. Has it taught you anything new?

33. What would you pass on as guidance and prevention techniques when tackling future construction of hotels?

34. There are more projects in the pipeline for Libya, is the company prepared, or is it still recovering from the 'project'?

35. Was there any time allocated for the company to recover from such a project or for the people to recover?

36. As an analysis to manage the company's way out: were any counselling workshops set up after the setback, If so, were the workshops set up so as to focus on future projects, or as a time of mourning and time to learn from the mistakes made?

References

1 **Biswas, T.** *'Decision Making Under Uncertainty',* London: Macmillan; New York: St. Martin's Press, 1997.

2 **British Standards Institution,** *'Project Risk Management: Application Guidelines',* London: BSI, c2002.

3 **Central Intelligence Agency,** *'World Fact Book',* https://www.cia.gov/cia/publications/factbook/index.html.

4 **Chapman, C. B. and Ward S,** *'Project Risk Management: Processes, Techniques, and Insights',* Chichester: Wiley, c2003.

5 **Davis Langdon and Everest,** *'Quality, Cost, Time: creating a successful hotel',* BDO hospitality consulting, 2000.

6 **Economist Intelligence Unit,** *'Country Profile, Libya',* 2006.

7 **Edwards P.J and Bowen P.A,** *'Risk Management in Project Organisations',* Oxford: Butterworth Heinemann, 2005.

8 **Flanagan, R and Norman G.** *'Risk Management and Construction',* Oxford: Blackwell Scientific, 1993.

9 **Gayer T. and Viscusi W.K.** *'Classics in Risk Management',* Cheltenham: Edward Elgar, 2004.

10 **General's People Committee** *'Executive Regulations for Law No.5',* No.138, of 1372PD, 2004.

11 **Institution of Civil Engineers and the Faculty and Institute of Actuaries,** *'Risk Analysis and Management for Projects',* London: Thomas Telford, 1998.

12 **International Monetary Fund,** *'World Economic Outlook Database',* April 2006.

13 **Kelly J. Morledge R. and Wilkinson S.** *'Best Value in Construction',* Blackwell science Ltd: Oxford, 2002.

14 **Mattingly, D.** *'Tripoli in 100 years 1870 – 1970: Dar Etabah Al-Haditha',* Tripolitania, B.T. Batsford Ltd, London.

15 **Monitor Group, CERA,** *'National Economic Strategy: An assessment of the competitiveness of the Libyan Arab Jamahiriya',* The General Planning Council of Libya, 2006.

16 **Raftery, J.** '*Risk Analysis in Project Management*', 1st Ed, London New York: E and FN Spon, 1994.

17 **Smith, N.J,** '*Appraisal, Risk and Uncertainty*', London: Thomas Telford, 2003.

18 **World Bank,** '*Doing Business in 2006: Creating Jobs*', USA, 2005.